



VIALFOTHERINGHAM LLP

T. BEAU ELLIS
503.684.4111 x336
DIRECT 503.594.8116
FAX 503.598.7758
Beau.Ellis@vf-law.com
Admitted to practice in:
Oregon

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Via eRulemaking Portal

P16785-001

Andrew Muench, Chemical Review Manager
Pesticide Re-Evaluation Division, Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460-0001

RE: ***Comments of Dean Innovations, Inc., on the Proposed Interim Registration Review Decision for Clopyralid***
Case Number 7212 | EPA Docket No. EPA-HQ-OPP-2014-0167

Dr. Muench:

I submit these comments on behalf of my client, Dean Innovations, Inc., a landscape supply yard located in Portland, Oregon. Dean Innovations provides, among other products, organic compost for commercial and residential uses. My client has spent more than 18 years developing all-natural, organic compost products to meet the varied needs of landscapers, gardeners, and other end-users in the Portland, Oregon Metropolitan Area. In large part, my client's sterling reputation has been forged through its willingness to work with local consumers to educate them on the benefits of using all-natural compost products and then delivering on those promised-benefits. Clopyralid, however, threatens these efforts and those of the composting industry generally. The additional restrictions offered by EPA in its Proposed Interim Registration Review Decision ("Interim Decision") would do very little, if anything, to ameliorate this threat. Because clopyralid inevitably finds its way into the organic compost stream, widespread reputational harm to the composting industry and the resulting decrease in consumer demand for their products would constitute an "[u]nreasonable adverse effect[] on the environment," EPA must impose additional restrictions on the use of clopyralid.

A pesticide's registration status is not immutable. A registered pesticide must "continue[] to satisfy the FIFRA standard for registration[.]" *See* 40 C.F.R. § 155.40(a)(1); *id.* at § 155.40(c)(1) (allowing EPA to undertake a pesticide review "[a]t any time"); *see also* 40 C.F.R. § 155.57 ("A registration review decision is the Agency's determination whether a pesticide meets, or does not meet, the standard for registration in FIFRA."). "If a product fails to satisfy the FIFRA standard for registration, the product's registration may be subject to cancellation or other remedies under FIFRA." 40 C.F.R. § 155.40(a)(2).

To be registered, a pesticide, moderated by any restrictions imposed by EPA, must, in relevant part, "perform its intended function without unreasonable adverse effects on the environment." 7 U.S.C. § 136a(c)(5)(C). An adverse effect is unreasonable where, in relevant part, it poses

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“any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide[.]” 7 U.S.C. § 136(bb); *see also id.* at § 136(j) (“The term ‘environment’ includes water, air, land, and all plants and man and other animals living therein, and the interrelationships which exist among these.”).

Clopyralid, a pyridine carboxylic acid herbicide, is a superagonist of a class of endogenous agonists, auxins, that regulate plant growth. Because its efficacy exceeds that of the endogenous agonist, it causes unregulated cell division leading to the plant’s eventual death. It is a post-emergence herbicide used to control broadleaf weeds and some woody plants. Unfortunately, several of the properties that make it an effective herbicide are also the source of its adverse effects on the environment. It is very soluble in water. *See, e.g., The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals* (M.J. O’Neil ed. 2006) (1000 ppm at 25 °C). It is effective on susceptible plants—both targeted and not—at very low concentrations. *See, e.g., Eiki Watanabe et al., Highly Sensitive Analytical Method for Herbicide Clopyralid Residue in Cattle Manure Compost with Ultraperformance Liquid Chromatography Tandem Mass Spectrometry*, 44(3) *J. Pesticide Sci.* 186, 186–87 (2019) (noting, in some crops, negative effects at 1 ppb); Julie V. Reimer, *Complicated Composting: Persistent Pyridine Carboxylic Acid Herbicides* 10 (April 23, 2013) (unpublished thesis, Virginia Polytechnic Institute, available at <https://pdfs.semanticscholar.org/a891/c12cfe5b36f8e82b4ec9458c25e10f766070.pdf>) (noting concentrations as low as 10 ppb are sufficient for particularly sensitive plants). Clopyralid shows extraordinary persistence in a variety of environments. *See, e.g., Reimer, supra* at 10 (describing the average half-life of clopyralid in a variety of conditions as ranging from 19 days for hot soil to more than 365 days for water-logged soil). Indeed, it is not readily metabolized by horses or cattle with most of any ingested clopyralid being excreted in an animal’s urine and feces. *See, e.g., Watanabe, supra* at 186.

These characteristics all contribute to the unavoidable accumulation of phytotoxic concentrations of clopyralid in compost. In treating hay, pastures, and non-residential turf, clopyralid is unknowingly introduced—directly or indirectly—into much of the feedstock or bedding used in animal agriculture. In turn, the manure generated by animal agriculture operations is typically used for compost material. When that material is used for its intended purpose as a soil amendment or compost blend component, facilities like Dean Innovations are wholly unaware the material is contaminated with clopyralid. The clopyralid contaminant damages or kills any susceptible plants the composted material is introduced to. This is, axiomatically, harm to the environment. It also causes a more systemic, if less direct, harm by doing grievous injury to the reputation of compost as a safe and effective soil amendment, resulting in loss of consumer confidence and decreased demand. Because composting, whether done by an individual or a composting facility, is a recycling program, which keeps useful materials out of landfills, any loss of acceptance by consumers effects a corresponding loss of those environmental benefits. *See* 7 U.S.C. § 136(bb) (requiring EPA to balance the “environmental costs and benefits of the use of a pesticide”).

To be effective, EPA must impose restrictions on the use of clopyralid that, in some form, address its unique ability to make its way into the streams of animal feedstocks or bedding material that eventually become compost. The new restrictions proposed by EPA in its Interim

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Decision do not do this. They do not attempt to eliminate incidents of contaminated compost, and may only just make them slightly less likely.

EPA proposes the following additional restrictions on the use of clopyralid to limit the potential for contaminated compost:

- (1) Expanding the pre-existing ban on its use on residential turf to include school lawns;
- (2) Prohibiting treated plants or the manure from animals that grazed on treated plants from being used for compost, or alternatively, requiring a yet-unspecified holding time or pre-harvest interval for treated plants;
- (3) Requiring applicators to notify the property owner/operator of clopyralid's environmental persistence and the compost ban;
- (4) Requiring applicators to keep records of the provided notice;
- (5) Requiring applicators provide educational materials to land owners/operators; and
- (6) Imposing more restrictive spray drift mitigation requirements.

See Interim Decision at 16–24.

Two of the new restrictions proposed by EPA—those that, at first blush, appear the most substantive—are of little value. Composting facilities, motivated by their own environmental and economic incentives, have attempted to ban clopyralid from animal feedstock and bedding material, but that has not prevented instances of compost-stream contamination. The knowing incorporation of clopyralid-containing feedstock is not and has never been the issue. This restriction, if it serves any purpose, mitigates an illusory problem but does nothing to address the unknowing inclusion of clopyralid-contaminated feedstock into compost. While more restrictive spray drift mitigation might provide some help, EPA admits that “the spray drift management measures proposed are *not* expected to substantially alter the way clopyralid is used[.]” *See Interim Decision at 24* (emphasis added). Compost-stream contamination events are regularly occurring so continuing the status quo does nothing. *See 7 U.S.C. § 136a(c)(5)(D)* (allowing registration only “when used in accordance with widespread and commonly recognized practices it will not generally cause unreasonable adverse effects on the environment”).

These restrictions may have helped decades ago, but in this age of globalization of agriculture, feedstocks are sold and shipped from across the globe and then fed into animal agriculture operations elsewhere. There is no practical means to track these feedstocks and actually prevent clopyralid from entering the compost stream. Notice and knowledge—the sum of EPA's remaining proposed additional restrictions—are ineffective when they do not reach their intended audience. Composting facilities typically lack privity with the applicator or landowner who originally used clopyralid. Where the facility is more than one step removed from the

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landowner/operator, EPA's notice and knowledge restrictions are meaningless.¹ They also do nothing to mitigate contamination caused by spray drift and the movement of clopyralid into groundwater or irrigation. Finally, EPA exempts public lands from the gossamer notice requirement, resulting in a significant amount of grazing land receiving even less protection. *See generally* US Bureau of Land Management, Public Land Statistics 2018 at 76–86 (Aug. 2019) (administering grazing on 155 million acres of land).

To find that clopyralid will have “no unreasonable adverse effects on the environment,” the restrictions imposed must substantially reduce the risk of clopyralid knowingly or unknowingly contaminating the various feedstocks supplying commercial composting facilities. *See* 7 U.S.C. § 136(bb). Nothing in the proposed restrictions does so. If EPA abdicates its responsibility to the environment by failing to impose meaningful restrictions on the use of clopyralid, the composting industry will once again be compelled to act in its place, contrary to Congress's intent in enacting FIFRA. *Cf. Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F3d 526, 531 (9th Cir 2001) (“FIFRA's objective is to protect human health and the environment from harm from pesticides, and to that end the statute establishes a nationally uniform pesticide labeling system[.]”).

Testing feedstocks or the resulting manures or compost for clopyralid is inefficient, statistically ineffective, and exceedingly expensive. Because clopyralid is phytotoxic at concentrations as low as 3 ppb, numerous samples must be tested at close to the detection limits of various methods for any confidence in a finding of no contamination. Without a more efficient detection method, the industry's collective efforts will fall short, resulting in, at best, a partial mitigation of future contamination events. But, under FIFRA's regulatory scheme, composting facilities should not have to bear the significant costs of ameliorating the environmental, commercial, and social harms caused by clopyralid; those must be borne, if clopyralid use is to be continued, by the direct beneficiaries—the manufacturers and applicators. *See Pollinator Stewardship Council v. U.S. E.P.A.*, 806 F.3d 520, 522–23 (9th Cir 2015) (“FIFRA uses a ‘cost-benefit analysis to ensure that there is no unreasonable risk created for people or the environment from a pesticide.’” (quoting *Washington Toxics Coal. v. EPA*, 413 F.3d 1024, 1032 (9th Cir. 2005))).

The recommended restrictions proposed by the US Composting Council in its June 26, 2020 letter commenting on the Interim Decision, with which my client supports, appropriately rebalances the costs and burdens among the concerned groups. *Cf.* 7 U.S.C. § 136(j) (defining “environment” to include “water, air, land, and all plants and man and other animals living therein, *and the interrelationships which exist among these*” (emphasis added)). In particular, manufacturers must accept the burden of developing a workable analytical process for detecting clopyralid at phytotoxic concentrations. *Cf. Watanabe, supra* at 186 (“[The detection

¹ Because composting facilities operate a form of recycling (i.e., collecting unwanted but useful materials from a variety of sources), this is the much more likely scenario. *See, e.g.*, US Composting Council, *Understanding Persistent Herbicides* at 2 <https://cdn.ymaws.com/www.compostingcouncil.org/resource/resmgr/images/USCC-PH-Fact-Sheet-1-for-web.pdf> (“[A] worst case chain of custody for straw could include a landowner, a herbicide applicator, multiple brokers, multiple haulers, a user of straw bedding, and finally a compost facility.”).

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of remaining clopyralid in the low concentration range described above is impossible as a practical matter because the limit of quantification (LOQ) of the analytical method is about 10 [ppb]. Therefore, the establishment of an analytical method with 10 times higher LOQ sensitivity than the current method is urgently needed.”). Aside from cancelling clopyralid’s registration, effective and economically sustainable detection would do the most towards eliminating contamination events. This should be an accepted cost to the continued use of a chemical that degrades slowly in the environment and remains potent at trace or undetectable concentrations.

Composting, whether done on a small scale by individuals or large scale by commercial entities, provides a significant benefit to the environment. It allows for the recycling of materials that would otherwise end up in landfills while facilitating the small-scale cultivation of ornamental plants, fruits, and vegetables. Clopyralid, through its pervasive ability to silently contaminate compostable materials, poses a direct threat to the ongoing viability of commercial composting facilities. Once consumer confidence is lost, the industry itself (and its myriad attendant environmental benefits) will follow. Accordingly, because the additional restrictions proposed by EPA in its Interim Decision do not, in any way, eliminate or make proportional “the economic, social, and environmental costs” of using clopyralid, *see* 7 U.S.C. § 136(bb), it does not satisfy the Section 5(c) requirements for registration. EPA must, therefore, impose restrictions that actually mitigate “[u]nreasonable adverse effect[] on the environment,” such as those proposed by the US Composting Council, or it must cancel clopyralid’s registration.

Thank you for the opportunity to comment on the Interim Decision.

Sincerely,

VIAL FOTHERINGHAM LLP



T. Beau Ellis
Of Attorneys for Dean Innovations, Inc.

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